03050204-010

(South Fork Edisto River)

General Description

Watershed 03050204-010 is located in Aiken, Edgefield, and Saluda Counties and consists primarily of the ***South Fork Edisto River*** and its tributaries from its origin to Shaw Creek. The watershed occupies 137,081 acres of the Sandhills and Upper Coastal Plain regions of South Carolina. The predominant soil types consist of an association of the Troup-Fuquay-Lakeland series. The erodibility of the soil (K) averages 0.11 and the slope of the terrain averages 6%, with a range of 0-25%. Land use/land cover in the watershed includes: 56.7% forested land, 30.3% agricultural land, 6.6% forested wetland (swamp), 4.2% barren land, 1.1% water, 0.8% urban land, and 0.3% nonforested wetland (marsh).

The South Fork Edisto River originates near the Town of Johnston and incorporates the drainage of First Branch, Hall Branch, and Temples Creek (Flat Rock Branch). The river then flows through Holmes Pond and accepts drainage from Satcher Branch, Long Branch, Beech Creek (Spann Branch, Bog Branch), Mill Creek (Flat Rock Creek, Pitts Branch, Lotts Creek), Easter Branch, Bulls Branch, Long Branch, Jumping Gut Creek, Mile Branch, and Kalop Branch. Further downstream, the river accepts drainage from Bridge Creek (Reedy Fork, Mill Branch), McTier Creek (Gully Creek, Harrison High Pond, Sawyer Pond, Boggy Branch, Holston Branch), Little Branch, Sandy Branch, Big Branch, Muddy Branch, and Beaverdam Branch (Smith Branch). In the lower portion of the watershed, Rocky Springs Creek (Wildcat Branch, Long Branch, Huttos Pond, Pitman Branch, Poplar Branch) enters the river followed by Purvis Branch, Clarks Mill Creek, and Cedar Creek (Neeses Lake). There are a total of 225.3 stream miles and 1,153.8 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

Station #	Type	Class	Description
E-001	S/W	FW	First Branch at S-19-41, beside water plant at Johnston
E-002	S/W	FW	South Fork Edisto River at S-19-57, below Johnston WWTP
E-090	P/W/BIO	FW	South Fork Edisto River at US 1, 12 mi NE of Aiken
E-578	BIO	FW	McTier Creek at S-02-209
RS-01034	RS01/BIO	FW	Rocky Springs Creek at Moore off S-020264, 7mi NE of Aiken
E-021	W/Inactive	FW	South Fork Edisto River at SC 302
E-113	INT	FW	South Fork Edisto River at S-02-152 (replaces E-021)

South Fork Edisto River – There are three SCDHEC monitoring sites along this section of the South Fork Edisto River, and recreational uses are fully supported at all sites. At the upstream site **(E-002)**, aquatic life uses are fully supported. Prior to 2001, this was a secondary monitoring station and sampling was intentionally biased towards periods with potentially low dissolved oxygen concentrations. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters.

At the midstream site **(E-090)**, aquatic life uses are fully supported based on macroinvertebrate community data. There is a significant decreasing trend in pH. A high concentration of mercury was detected in the1997 sediment sample. Significant increasing trends in dissolved oxygen concentration and decreasing trends in five-day biochemical oxygen demand, turbidity, and total nitrogen concentration suggest improving conditions for these parameters. At the downstream site ***(E-021/E-113)***, aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions were noted at ***E-090*** and ***E-021***, they were typical of values seen in such systems and considered natural, not standards violations.

First Branch (E-001) - Aquatic life uses are fully supported. There is a significant decreasing trend in pH. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH and dissolved oxygen excursions were noted, they were typical of values seen in such systems and considered natural, not standards violations. Prior to 2001, this was a secondary monitoring station and sampling is intentionally biased towards periods with potentially low dissolved oxygen concentrations. Significant decreasing trends in five-day biochemical oxygen demand, turbidity, and total phosphorus concentration suggest improving conditions for these parameters. Recreational uses are fully supported, and a significant decreasing trend in fecal coliform concentration suggests improving conditions for this parameter.

McTier Creek (E-578) - Aquatic life uses are fully supported based on macroinvertebrate community data.

Rocky Springs Creek (RS-01034) - Aquatic life uses are fully supported based on macroinvertebrate community data. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentration. Although pH excursions were noted, they were typical of values seen in such systems and considered natural, not standards violations. Recreational uses are fully supported.

Natural Swimming Areas

FACILITY NAME	***PERMIT #***
RECEIVING STREAM	***STATUS***
CAMP GRAVATT	02-N06
MCTIER CREEK	ACTIVE
LONG 4-H CENTER	02-N03
BIG BRANCH	ACTIVE

NPDES Program

Active NPDES Facilities

RECEIVING STREAM ***FACILITY NAME*** ***PERMITTED FLOW @ PIPE (MGD)***	***NPDES#*** ***TYPE*** ***COMMENT***
SOUTH FORK EDISTO RIVER ECW&SA/JOHNSTON #1 PLT PIPE #: 001 FLOW: 0.968	SC0025691 MINOR DOMESTIC
SOUTH FORK EDISTO RIVER JM HUBER CORP./EDISTO PLANT PIPE #: 001 FLOW: MR	SC0024341 MINOR INDUSTRIAL
BEAVERDAM BRANCH KENTUCKY-TENNESSEE CLAY CO./GENTRY PIT PIPE #: 001 FLOW: MR	SC0046388 MINOR INDUSTRIAL

Nonpoint Source Management Program

Mining Activities

MINING COMPANY ***MINE NAME***	***PERMIT #*** ***MINERAL***
JAMES HENRY BLEDSOE CONSTRUCTION CO. MONETTA CLAYPIT	0956-03 SAND; SAND/CLAY
HOLMES TIMBER, INC. ABNEY MINE	0954-03 SAND; SAND/CLAY
GL WILLIAMS & SON TRUCKING PIT 49	0978-03 SAND
JM HUBER CORP. CORDER MINE	0406-03 KAOLIN
BLEECK ENTERPRISES, INC. ENTERPRISE MINE	1086-03 KAOLIN CLAY
SOUTHEASTERN CLAY COMPANY SHADE MINE	0071-03 KAOLIN
WR GRACE & CO. SCOTT MINE	0072-03 KAOLIN
KENTUCKY-TENNESSEE CLAY CO. GENTRY MINE	0594-03 KAOLIN
JM HUBER CORP. BRODIE MINE	0038-03 KAOLIN
JM HUBER CORP. LAUGHLIN WEST MINE	1136-03 KAOLIN
JM HUBER CORP. LAUGHLIN MINE	0811-03 KAOLIN

Growth Potential

There is a low to moderate potential for growth in this agricultural-based watershed, which contains portions of the Towns of Johnston, Ward, and Ridge Spring. The greatest potential for growth surrounds the three interchanges of Interstate 20: U.S. Hwy 1, S.C. Hwy 391, and S.C. Hwy 39. A rail line runs between the Towns of Johnston and Monetta, both of which show slightly increasing populations. The Town of Johnston has the ability to connect into the Regional Sewer Collection System in the future. Other growth potentials for the area included the industrial park at the interchange of S.C. Hwys 23 and 121 in Johnston, and the addition of both a federal and a state prison in the area.